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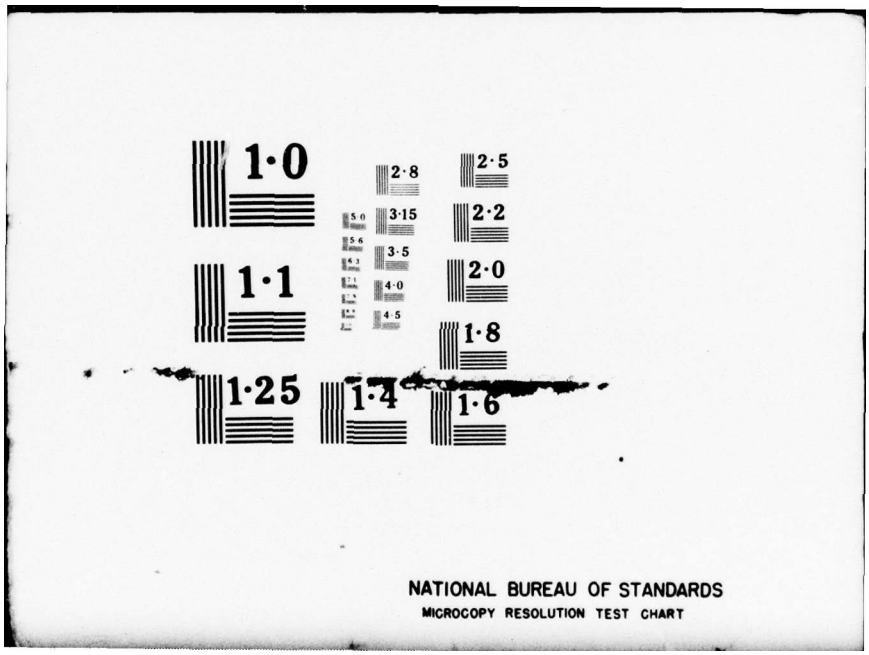
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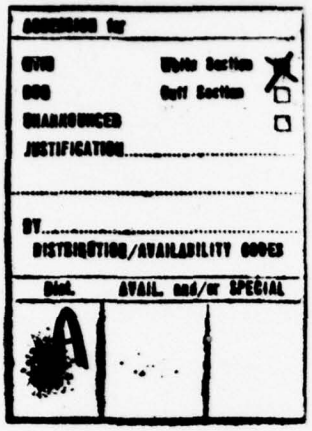

APPLICATION OF BEHAVIORAL SCIENCE THEORIES WITHIN THE ARMY PROJECT MANAGEMENT OFFICE

An Executive Summary
of a
Study Report
by

Ben S. Arnette, Jr.
Major USA

May 1973

Defense Systems Management School
Program Management Course
Class 73-1
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DEFENSE SYSTEMS MANAGEMENT SCHOOL

STUDY TITLE: Application of Behavioral Science Theories Within The Army Project Management Office

STUDY PROBLEM/QUESTION: Analysis of the application of behavioral management theories in the Army project management office.

STUDY REPORT ABSTRACT:

Military managers are receiving more and more exposure to behavioral management theories, but there does not appear to have been a corresponding increase in their application. This study contains a summary of Dr. Chris Argyris' theory of integrating individual and organizational objectives and Dr. Frederick Herzberg's motivation-hygiene theory and examples of practical applications of each in the Army project management office. This study is intended to provide managers with a starting point for the use of these theories and also to cause managers to begin to consider behavioral management theories as a usable management tool.

KEY WORDS: PERSONNEL MANAGEMENT PROJECT MANAGEMENT MANAGEMENT BY OBJECTIVES PARTICIPATIVE MANAGEMENT

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Class 73-1

Date May 1973

Executive Summary

The concept of project management is to provide centralized management authority over all the technical and business aspects of a project. The project manager's role is to tie together, to manage, to direct the development and production of a system meeting performance, schedule and cost objectives which are defined by his Service and approved by the Secretary of Defense. In filling this role, the Army project manager must get people to communicate with each other to achieve a common understanding of the needs of the project and their place in the harmony of the total project effort. Therefore, people and their productivity must be of prime concern to the project manager and his staff if his project objectives are to be attained.

The purpose of this study is to show that the application of behavioral management is possible and necessary in the project management office environment. Middle and upper levels of management are being exposed in ever increasing numbers to the concepts of behavioral management, but application of the theories appears to be limited. I feel that one of the prime reasons for this seeming reluctance of our managers to take the step from our traditional views of management to the newer world of the behaviorists is the difficulty in finding practical applications of theory in the real world of management. The following discussion is meant to point out specific areas where changes can be made which will lead to a more

productive work force. Two theories, Dr. Argyris' theory of integrating individual and organizational objectives and the motivation-hygiene theory of Dr. Herzberg, are used as the vehicle for my discussion.

Dr. Argyris postulates that people cannot be motivated; by nature they are motivated. The problem for managers is the direction and form this motivation takes. Therefore, one of the major themes underlying most of Argyris' research and writing is the basic incongruency between the growth trends of a healthy personality and the requirements of the formal organization. Argyris contends that in order to correct this situation, the traditional hierarchical structures must be changed. He also states that organizational change is a process that is accomplished through behavioral changes in the people who populate the organization.

Dr. Herzberg's hypothesis is that a part of each job consists of hygiene considerations such as salary, working conditions, and fringe benefits that do not motivate the worker, but the lack of which lead to dissatisfaction. The things that a worker seeks in his job are such factors as responsibility, recognition, and advancement which, if present, will serve to motivate him and lead to psychological satisfaction with the associated benefits to both himself and his employer.

A detailed discussion of each theory is provided along with how they can be applied to the management problems that

exist in the Army project management office. Also, a discussion of several job modifications which can be incorporated and how each serve to motivate the worker is included. Hopefully, this study will serve as a starting point for the manager who desires to initiate a program within his office which will lead to psychological satisfaction for his employees and greater productivity. In any event, if this study does nothing more than to cause managers to begin to consider behavioral management as a tool, it will have served its purpose.

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APPLICATION OF BEHAVIORAL SCIENCE THEORIES WITHIN THE ARMY PROJECT MANAGEMENT OFFICE

STUDY REPORT

Presented to the Faculty
of the
Defense Systems Management School
in Partial Fulfillment of the
Program Management Course
Class 73-1

by

Ben S. Arnette, Jr.
Major USA

May 1973

APPLICATION OF BEHAVIORAL SCIENCE THEORIES WITHIN THE ARMY PROJECT MANAGEMENT OFFICE

INTRODUCTION

The concept of project management is to provide centralized management authority over all of the technical and business aspects of a project. The project manager's role is to tie together, to manage, to direct the development and production of a system meeting performance, schedule and cost objectives which are defined by his Service and approved by the Secretary of Defense. In filling this role, the Army project manager must rely on others, the people in his project office and the people in the functional organizations that provide support for his project. This touches upon what is likely the most important function of the project manager: getting people to communicate with each other to achieve a common understanding of the needs of the program and their place in the harmony of the total program effort.[1] People and their productivity must therefore be of prime concern to the project manager and his staff if the project objectives are to be met.

*ABSTAINER

This study represents the views, conclusions and recommendations of the author and does not necessarily reflect the official opinion of the Defense Systems Management School nor the Department of Defense.

Many management theories and techniques have been put forth over the years and new ones are being generated almost daily; therefore, the project manager is challenged to find practical applications for these theories consistent with his project objectives. Certainly every theory, whether old or new, that he is exposed to cannot be applied since such an approach would almost certainly lead to utter confusion. Neither should managers, in my opinion, attempt to completely change their style of management to conform to any one school of management, but rather managers should adopt those techniques that will best supplement their present management style.

To perform an in-depth study of each of today's most popular schools of management and their application would go beyond the scope of this study. I have therefore selected two theories, Dr. Argyris' theory of integrating individual and organizational objectives and Dr. Herzberg's motivation-hygiene theory, for discussion in this paper. This discussion will include an explanation of each and practical applications within the project office environment. These theories were not selected because they represent the best approaches to behavioral management, or even recommended approaches, but because Dr. Argyris and Dr. Herzberg see very different basic causes of the management problem which we face. The vehicle is not as important as the idea I am trying to convey, that behavioral management is applicable

in the Army project office.

The foundation for the two theories to be discussed is the work done by Abraham H. Maslow. His influence on the whole behavioral science movement, as indicated to me by my study efforts, is profound. Therefore, his "Hierarchy of Needs" must be understood and believed before significant benefits can be derived from the two theories addressed in this study.

Certain assumptions about the nature of motivation were made by Maslow in arriving at his "Hierarchy of Needs":

> "...motivation is defined as the state of having an internal motive that incites the individual to some kind of action. By its very nature, motivation comes from within the individual and cannot be imposed on him. Man is viewed as goalseeking from the beginning of life to its end. The ubiquitous nature of his goals serves as a measure of man's nature and the form his behavior takes. Any action a person takes to reach a goal is commonly called a drive. The acting out of a drive is seen as evidence of motivation to reach a goal.
>
> Maslow's theory of personality and motivation converts these goals to a set of needs; man is motivated to reach a certain goal because he has an internationally generated need to reach it. Maslow chose to categorize and rank these sets of human needs into a conceptual hierarchy, beginning with the most primitive and urgent human needs and ranging upward to the apex of the hierarchy, self-actualization. While there may be nuances and graduations within any given level of need, Maslow identified the primary breakdown as follows in his "Hierarchy of Needs":
>
> Need for self-actualization
> Need for esteem
> Need for belongingness and love
> Safety needs
> Physiological needs
>
> The physiological needs refer to food, warmth, shelter,

elimination, water, sleep, sexual fulfillment, and other needs.

The safety needs include actual physical safety, as well as a feeling of being safe from injury, both physical and emotional; therefore a feeling of emotional security as well as a feeling of freedom from illness would be included under safety needs.

The need for belongingness and love represents the first social need. Physiological and safety needs are centered around the individual's own person. The need to love and belongingness is the need for other people. It is the need to feel a part of a group or the need to belong to and with someone else. It implies the need both to give and to receive love.

The need for esteem is based on the belief that a person who has a basic need for self-respect and the esteem of others (except in extreme pathology). The need for esteem is divided into two sub sets: first, there is the need for feeling a personal worth, adequacy, and competence; and secondly, there is the need for respect, admiration, recognition, and status in the eyes of others.

The need for self-actualization is a more difficult concept to describe. Self-actualization is the process whereby one realizes the real self and works toward the expression of the self by becoming what one is capable of becoming. In other words, self-actualization is the process of making actual the person's perception of his 'self'."[2]

Man's needs, as postulated by Maslow, can be pictured as a layered triangle with the physiological needs at the base and the need for self-actualization at the apex. This graphic model is used to underscore the ascending occurrence of each need. A person is not concerned with a higher level need until the lower level needs are satisfied and form a base for the next higher level. Likewise, once a need is satisfied, it no longer motivates.

The fulfillment of human needs as outlined by Maslow are held to be universal and applicable, at least in the lower levels, to all persons. Maslow postulates that all human beings have the capacity to climb up the motivational hierarchy, and the ever-upward reaching of a person is seen as evidence of his emotional maturity. He categorizes the first four needs as deficit needs because their fulfillment is so much a part of the natural development of a normal personality that they are stimulated only in their absence. Self-actualization, however, is labeled a growth need. This implies that the person who has reached this level has taken care of the deficit needs and is in a state of psychological health where he begins the process of self-realization or becoming what he is capable of becoming. With this freedom, the self-actualizing person is characterized as spontaneous, creative, and capable of achieving immense satisfaction from doing the thing or things that represent the realization of his capabilities.[3]

I

Dr. Argyris postulates that people cannot be motivated; by nature they are motivated.[4] The problem for managers is the direction and form this motivation takes. Therefore, one of the major themes underlying most of Argyris' research and writing is the basic incongruency between the growth trends of a healthy personality and the requirements of formal organization.

To better understand this concept, let us examine the seven changes that normally occur as an individual matures as presented by Dr. Argyris. First, an individual moves from a state of passivity as a child to one of increased activity as an adult. A child characteristically is in the hands of his environment; a mature adult, on the other hand, has learned how to control his environment to some extent and knows how to make some events turn out to his liking. Second, he gradually outgrows his total dependence on others and develops a capacity to shift for himself. Argyris tempers this somewhat by stating that some dependencies are healthy; however, this does not mean that an individual must bow before the opinions of others or sit idly while unsatisfactory events take their course. Third, a child has a very limited repertoire of ways of behaving, but as he grows older he becomes much more versatile and can respond to a given situation in a variety of ways. The adult not only is able to handle a given task in

many ways, but also is very likely to become bored if he doesn't. Fourth, a child does not maintain a given interest for very long and can hardly be said to pursue his interests deeply or deliberately. The change, from child to adult, is from a rather shallow interest as a child to a capacity as an adult to find endless challenges in what he is doing, provided, of course, that it is interesting to him in the first place. Fifth, a child's time perspective is very short. As he matures, however, he becomes aware of both past and future, and as an adult he often ignores the present for the sake of either or both. He is very much concerned with that may or may not happen in the future and tries to influence events so that they turn out to his liking. Sixth, the individual normally develops from being everybody else's subordinate, as a child, to being an equal or even a superior of others as an adult. A mature person can function either as a superior or as a subordinate, as the occasion requires. He makes allowances for differences in training and experience but considers himself as capable as the next man of exercising judgment and making decisions. He is not servile and does not "know his place" in the caste system of the term. Seventh, while the child does not have a habitual set of attitudes about himself and indeed does not have much of a "self" to have attitudes about, the adult thinks about himself a great deal and normally has an ego and may go to some lengths to protect it. His ego may make him rather inconven-

ient to manage, since it demands individual attention and care; yet this is a healthy demand without which the individual cannot flourish. The adult ego with its persistent concern about itself may be an obstacle to mechanistic management, but it is also the indispensable basis for productivity gains. These social and egoistic needs include a sense of personal value or self-esteem, a means of involvement of the self in creative work, a feeling of contributing to the efforts of the groups to which the employee belongs and recognition for this contribution, a feeling of accomplishment, the opportunity to participate in planning, decision making, and execution of matters that affect him, the need for independence. In short, Argyris agrees with many of his colleagues who contend that man in modern industrial society has strong self-actualizing needs.[5]

If the principles of formal organization are applied in their purest form, Dr. Argyris sees employees working in an environment where (1) they are provided minimal control over their workaday world, (2) they are expected to be passive, dependent, and subordinate, (3) they are expected to have a short time perspective, (4) they are induced to perfect and value the frequent use of a few skin-surface shallow abilities and (5) they are expected to produce under conditions leading to psychological failure.[6] These characteristics are incongruent to the ones healthy individuals are postulated to desire. They are, in fact, more in line with the needs of in-

fants in our culture. In effect, therefore, organizations are willing to pay high wages and provide adequate seniority if mature adults will behave in a less than mature manner. Thus Argyris argues that, while organizations are formed to utilize effectively collective human resources, the intended form of most organizations produces serious unintended consequences. When the unintended consequences are characteristic of an organization, Argyris calls the organization "unhealthy" or "sick". The principal variable in diagnosing the health of an organization is the direction the psychological energy takes. Thus, if psychological energy is spent in avoiding or subverting the organization's aims, Argyris would view the organization as sick.

Building on this foundation, he developed his theory of integration of the two organisms. Therefore, if the integration of two different entities is to be accomplished, change is implied. Because he sees human problems resulting from the inherent nature of most organizations, fundamentally the problem is one of changing the organization to conform to human needs. Argyris contends that traditional hierarchical structures represent one area in which change is demanded. However, going beyond the purely structural considerations, he views organizational change as a process that is accomplished through behavioral changes in the people who populate the organization.

As a conceptual base for this change process, Argyris developed what he calls a "mix" model (Exhibit 1). In the mix model he postulates six organizational variables, juxtaposed to illustrate the contrasting directions that psychological energy may take to determine the degree of psychological health or sickness. He calls these six dimensions essential properties of organizations. Dimensions that are diverted away from the essential properties are equated with further alienation of the individual and the organization; dimensions that are directed toward the essential properties are seen as buttressing the symbiosis of individual and organization objectives.[7]

One issue clearly at stake in the mix model is the source of power and influence in the organization. In the "away" dimensions power is central, whereas in the "toward" dimensions there is an equalization of power and a balance of power throughout the organization. The "awareness of plurality of parts" implies a view of a discrete unit or departments within an organization without seeing each unit's functions in relation to the total effort. The third variable underscores this point in that the unit's objectives are self-serving, independent, and narrow. The fourth characteristic implies regidity and inflexibility on the part of the organism that make it unable to change, modify, and adapt its internal structure, roles, processes, or objectives to meet the demands of a constantly

	Away from the Essential Properties		Toward the Essential Properties
1.	One part controls the whole	1.	The whole is created and controlled through the interrelationships of all parts
2.	Awareness of plurality of parts	2.	Awareness of pattern of parts
3.	Achieving objectives related to the parts	3.	Achieving objectives related to the whole
4.	Unable to influence its internally oriented core activities	4.	Able to influence internally oriented core "it" desires
5.	Unable to influence its externally oriented core activities	5.	Able to influence externally oriented core activities "it" desires
6.	Nature of core activities influenced by the present	6.	Nature of core activities influenced by past, present and future

Exhibit 1. The Mix Model[8]

changing internal environment. The fifth characteristic refers to the requirement of the outside environment. The sixth and final variable relates to a short-sighted approach to achieving objectives, maintaining the internal system, and adapting for growth in the future.

Simply stated, the variables that are seen as aiding the organism to move toward the essential properties are polar extremes of the foregoing variable. In the positive or "toward" column, there is equalization and distribution of power and influences; there is an awareness of over-all goals and objectives; there is cooperative effort expended in relating the unit's activities to the total objectives; there is an atmosphere of open communication and mutual understanding of functions and roles that permits internal flexibility and freedom; there is an attitude that welcomes change as a means of growth and advancement within the demands of the external environment; and, finally, there is a planned strategy of change, goal setting, and decision making, that takes into account past experiences, present demands, and the anticipated requirements of the future.[9]

One very important consideration is that the essential properties of organizations apply equally to individuals, to groups, and to organizations. Movement toward the essential properties is seen as a part of the interrelatedness of all three, a radical change from the posture of traditional or-

ganizations as seen by Argyris. If this change is to occur, according to Argyris, one initial step must be the creation of a climate of openness and trust in all interpersonal relationships. He strongly advocates the development of interpersonal competence and authenticity in dealing with personal differences that may block information flow and understanding of individual, unit, and organizational objectives, and which amount to a sapping of energy that ought to be redirected toward cooperative work.

"Job enlargement" or the expansion of job content to include a wider range of tasks and to broaden the worker's control over his tasks looms large in the work of Argyris. In his concept of job enlargement, most workers would have a variety of tasks, a safeguard against boredom and apathy, and a wider scope of responsibility in order to present the needed challenge and sense of accomplishment. The worker would be given the freedom to set his own pace, perform quality control checks on his work, and have discretion in the method of performing his tasks. Implicit in job enlargement is interchange of tasks among members of a particular work group, so as to enhance the member's knowledge of each other's jobs and to gain more flexibility in meeting the group's production objectives. Certainly a desired part of this interchange is the enrichment of the group's participation, interaction, and cohesiveness.

II

Dr. Frederick Herzberg's motivation-hygiene theory postulates that the factors involved in producing job satisfaction are separate and distinct from the factors that lead to job dissatisfaction. The best way to explain this concept is by quoting the author of the theory:

> "How do you install a generator in an employee? A brief review of my motivation-hygiene theory of job attitude is required before theoretical and practical suggestions can be offered. The theory was first drawn from an examination of events in the lives of engineers and accountants. At least 16 other investigations, using a wide variety of populations (including some in the Communist countries), have since been completed, making the original research one of the most replicated studies in the field of job attitudes.
>
> The findings of these studies, along with corroboration from many other investigations using different procedures, suggest that the factors involved in producing job satisfaction (and motivation) are separate and distinct from the factors that lead to job dissatisfaction. Since separate factors need to be considered, depending on whether job satisfaction or job dissatisfaction is being examined, it follows that these two feelings are not opposite of each other. The opposite of job satisfaction is not job dissatisfaction but, rather, no job satisfaction; and. similarly, the opposite of job dissatisfaction is not job satisfaction, but no job dissatisfaction. Stating the concept presents a problem in semantics, for we normally think of satisfaction and dissatisfaction as opposites — i.e., what is not satisfying must be dissatisfying, and vice versa. But when it comes to understanding the behavior of people in their jobs, more than a play on words is involved.
>
> Two different needs of man are involved here. One set of needs can be thought of as stemming from his animal nature — the built-up drive to avoid pain from the environment, plus all the learned drives which become conditioned to the basic biological needs. For

example, hunger, a basic biological drive, makes it necessary to earn money, and then money becomes a specific drive. The other set of needs relates to that unique human characteristic, the ability to achieve and, through achievement, to experience psychological growth. The stimuli for the growth needs are tasks that induce growth; in the industrial setting, they are the job content. Contrariwise, the stimuli inducing pain-avoidance behavior are found in the job environment.

The growth or motivator factors that are intrinsic to the job are: achievement, recognition for achievement. the work itself, responsibility, and growth or advancement. The dissatisfaction-avoidance or hygiene (KITA) factors that are extrinsic to the job include: company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security."[10]

It can readily be seen that Herzberg, in establishing his motivation-hygiene theory, relied heavily upon the hierarchy of needs developed by Maslow. He stressed that the factors that truly motivate the worker are growth factors, those that give the worker a sense of personal accomplishment through the challenge of the job itself. Real job satisfaction or motivation is seen as resulting from the worker's involvement in accomplishing an interesting task and from his feeling of accomplishment alone, and not from the working conditions or environmental factors that are peripheral to the job. There is clearly a connection here with Maslow's theory of self-actualization. Herzberg also uses Maslow's hierarchy of needs as a basis for his views on the hygiene factors. He insists that the hygiene factors are important and that they, like Maslow's lower level needs, must be adequately met if an individual is to rise above them to the self-actualizing

concerns of involving himself in meaningful tasks. If the hygiene factors are removed or reduced, the worker will quickly slip down a level or two in the hierarchy and concern himself with the dissatisfactors instead of the real content of his work. This illustrates the danger of attempting to use hygiene factors as motivators and is amplified even further in the following statement made by Dr. Herzberg. "The effect of improved salary, working conditions, interpersonal relations, etc., will continue to occupy the personnel administrator without any hope of his escaping the question, What have you done for me lately? Hygiene acts like heroin — it takes more and more to produce less and less effect."[11]

Herzberg contends that motivational attempts, if they are to be effective, must therefore focus on the self-fulfilling, achievement-motivated, self-actualizing needs of employees. The continuing theme of his prescription for a motivated work force is job enrichment. Job enrichment means actually increasing the challenging content of the job that will cause employees to grow both in skill and in his feeling of accomplishment. Herzberg cautions against the use of an older term, job enlargement, as it may mean loading the employee down with more to do, while providing him no opportunity to grow. This kind of "job horizontal loading" or increasing the number of tasks an employee performs, may only amount to making the job structurally larger. The key to job enrichment or

"vertical loading" is to assure that whatever changes are made are meaningful and not merely adding meaningless tasks to work that is also meaningless.

Job enrichment will not be a one-time proposition, but a continuous management function. The initial changes, however, should last for a very long period of time because the changes should bring the job up to the level of challenge commensurate with the skill of the person performing the task; those who have still more ability will be able to demonstrate it better and win promotion to higher-level jobs; and the very nature of motivators, as opposed to hygiene factors, is that they have a much longer term effect on employees' attitudes.

Dr. Herzberg sums up the argument for job enrichment in the following manner: "If you have someone on a job, use him. If you can't use him on the job, get rid of him, either via automation or by selecting someone with lesser ability. If you can't use him and you can't get rid of him, you will have a motivation problem."[12]

III

Now that the two concepts or theories selected for discussion in this paper have been presented, an attempt will be made to point out how one can relate or apply them to the Army project office. However, before doing this, I feel a brief discussion of the Army project office must be included so that we can better understand how to go about this task.

Most Army project offices are organized using the matrix approach. Under the matrix organizational philosophy, the project office is austerely staffed and relies upon functional, support organizations for virtually all of its specialized support. Some of the merits of matrix organizations are that they are less disruptive to the functional, supporting organizations, they permit greater specialization, and they tend to minimize technical duplication. Some of the deficiencies of matrix organizations are that they do not provide the project-oriented emphasis necessary to accomplish tasks as expeditiously as might be desired, they make it more difficult to pinpoint responsibility, and they do not enjoy the same high degree of project motivation as do vertical or self-sufficient organizations.[13] The author feels that the listed deficiencies of the Army project office (matrix organization) are not in fact deficiencies of the organization, but rather, they are symptoms that the people associated with the project are lacking proper motivation.

Dr. Argyris' theory of integrating individual and organizational objectives to increase productivity is certainly compatible with the concept of project management. The basic objective of this concept is to bring together people with a collection of appropriate skills to accomplish a given job which is directly in line with his general idea of discarding the "one man - one boss" concept. Also, this concept significantly deviates from the formal organizational structure as described by Dr. Argyris because the personnel in the project office have a great degree of freedom in dealing with others, both in the vertical and horizontal directions. Therefore, I feel that Dr. Argyris' ideas concerning the integration of individual and organizational objectives do have practical application within the project management concept and have been applied in the Army project management office organization. Assuming this statement to be true, why is there still evidence of a lack of motivation among the people staffing the project office? Could it be because they feel a lack of achievement, recognition, meaningful work, responsibility, advancement, or growth? Some, if not all, of these factors are involved to some degree if the contents of this study are accepted. Therefore, I feel that we have two alternatives that can be chosen in correcting this situation, job enlargement or job enrichment. Having experienced the effects of job enlargement efforts without job enrichment prompts me to

recommend the job enrichment approach put forth by Dr. Herzberg.

Job enrichment is the process of identifying and implementing meaningful changes in the work itself and is meant to motivate the employee, not only for the benefit of the company (or the Army project office in this case), but for his own psychological growth as well. My purpose here is to identify changes that can be made in the project office which would be classified as motivators in the context of Dr. Herzberg's theory. Also, I hope to stimulate the curiosity of others so that more of our military managers will investigate job enrichment, since in the final analysis, meaningful improvements can best be identified and applied by those most familiar with the work, the managers themselves.

The most orderly approach to this task would be to list the motivators identified by Dr. Herzberg and then to discuss what actions we might take to put each into use. Exhibit 2 provides the reader with a reference list of general principles which apply to job enrichment and the motivators involved with each. It should be pointed out that Dr. Herzberg provided the information in Exhibit 2 as a useful starting point for job enrichment efforts; therefore, the reader should not discount this very important theory simply because he does not agree with the principles presented or the motivators associated with each.

Exhibit 2[14]

Principles of Vertical Job Loading

	Principle	Motivators Involved
A.	Removing some controls while retaining accountability	Responsibility and personal achievement
B.	Increasing the accountability of individuals for own work	Responsibility and recognition
C.	Giving a person a complete natural unit of work (module, division, area, and so on)	Responsibility, achievement and recogniton
D.	Granting additional authority to an employee in his activity; job freedom	Responsibility, achievement, and recognition
E.	Making periodic reports directly available to the worker himself rather than to the supervisor	Internal recognition
F.	Introducing new and more difficult tasks not previously handled	Growth and learning
G.	Assigning individuals specific or specialized tasks, enabling them to become experts	Responsibility, growth, and advancement

Achievement is defined as the personal satisfaction of completing a job, solving problems, and seeing the results of one's efforts.[15] This is primarily something an individual must feel within himself and the manager is limited in the actions that he can take to instill a sense of achievement. The manager can, however, provide the vehicle that will allow the individual to experience the feeling of achievement.

In order for an individual to feel a sense of achievement when performing a task, he should be allowed to finalize the project that he becomes involved in. For example, when we assign one of our project officers the task of preparing a study or a special briefing and then have someone else present the finished product, we are denying the individual the chance to complete his project and passing up a chance at motivation. Why, then, do we not allow the person who prepares a briefing to present it when possible? It is realized that there are times when this is not possible, but there are certainly more times when it would be possible if we would just turn loose of the reins and take advantage of this job enrichment opportunity. If the briefing must be presented by the supervisor, efforts should be made to allow the one who prepared the backup material and the briefing to be present to take part in the final action. The individual would feel more personal satisfaction by actually experiencing the reaction of higher management to his efforts rather than

having it relayed through his supervisor.

As stated before, the sense of achievement normally comes from within the individual and there will be relatively little the supervisor can do in this area, but this is part of the task of management - to find the motivator.

Recognition for Achievement. Before a meaningful discussion of this motivator can take place, one must make himself aware of one very basic ground rule. This rule states that recognition must be for real achievement and that it is earned, because if it is not, recognition serves little positive purpose. In fact, it quickly becomes a dissatisfier for all other employees who know the one recognized did not earn what he received.

The obvious tools available to us for the recognition of achievement are the various awards such as Outstanding Performance Ratings, Junior Officer of the Month, Quality Step Increase, Sustained Superior, etc. Too often we find these being parceled out by personnel offices and the various organizations given their quota of awards for the period. When this is the case we either have supervisors flooding the organization with awards, in which case some are not earned, or that someone outside the organization can say that it has only one or two outstanding people, in which case, a deserving person might not be recognized.

Recommendations for awards are difficult and time consuming to prepare, but if we have people who are deserving we should make the effort to recognize them through the formal awards system. However, it should be remembered that they are to be used as motivators, thus if we use them purely to get an employee extra points for retention or promotion and not truly for deserved recognition, then awards become hygiene factors and lose their effectiveness.

There are ways to recognize achievement other than through formal awards. We all are familiar with a pat on the back for a job well done or "atta boy", but I am not referring to a generalized statement made in an offhand manner. To have real meaning, it must be a specific reference by a supervisor to a particular task performed by an employee which they both feel is significant and which deserves recognition. How we phrase this recognition may be more important than we realize and since I am obviously not a psychologist, I will borrow from Dr. Herzberg. He points out that if we say, "That was a fine job and I'm very pleased," it is we who are pleased and the employee has accomplished the task of pleasing us, but he is not motivated. If, however, we say, "That was a fine job; you must be pleased at having it turn out so well," we are recognizing his accomplishment, telling him it is he that should be pleased; he in turn feels a sense of achievement and is, therefore, motivated from within.

Work Itself, as discussed by Dr. Herzberg, is: "The actual content of the job and its positive or negative effect upon the employee is a central feature of the analysis, whether the job can be characterized as interesting or boring, varied or routine, creative or stultifying, excessively easy or excessively difficult, challenging or nondemanding."[16]

We need first to look around our office to evaluate the talents of the people we have working for us and the jobs we have assigned them to perform. For the past several years, we have gone to great lengths to hire people with more formal education, thus resulting in a work force with more capability. Then, in many cases, we have given them jobs that do not require the skills they have, or equally wrong, we put them in jobs that require new approaches and special skills and tell the new employees to continue doing the job in the same way. This may explain why some of our bright young officers have become classed as malcontents and some of our bright young civilian employees disappoint us. They either may not have been given work that requires their level of skill or may have been submerged in the bureaucratic mire of resistance to change. We therefore need to place more emphasis on matching people to jobs that fit their capabilities and on assuring that, as their capabilities increase, the challenge of their job increases.

One method for eliminating problems in this area would be by means of a periodic assessment of the work performed by each employee and the transfer of responsibilities as required to insure that they are performing the most challenging work that they can handle within the organization.

Responsibility. This factor "refers to the employee's control over his own job, or his being given responsibility for the work of others."[17] Before we proceed with a discussion of this factor, let us assume that we have capable people who possess judgment and skills commensurate with their grade or rank. If we do not have such people or if we cannot identify those in our organization who do not possess these attributes, then we have problems which are outside the scope of this discussion. Also, we must assume that the people have not lost their desire for responsibility through either insecurity or lack of opportunity to perform tasks which would have developed the individual's capability to accept positions of responsibility. Remembering these two assumptions, we can proceed to tie several of the previously discussed motivators to responsibility and increased motivation through job enrichment.

One logical starting point for implementing job enrichment by increasing responsibility is to review our policies requiring all correspondence to be signed by supervisors. If all correspondence is presently signed by supervisors at the first or second level, we should consider allowing employees to sign their own correspondence. We should make it

a selective process and by doing so, motivate through recognition at the same time. Take, for example, the GS-13 with several years on the job and who we have learned we can rely upon and start by letting him sign a specified level of correspondence. As we both gain confidence, increase the level and types of correspondence that he is allowed to send out without our review and then expand the program to other selected employees. Another possible approach would be to allow project officers initiating internal correspondence to sign it and forward it through channels with either a "buck slip" showing we have approved it or a thru block in the address.

We have a built-in resistance to putting things in writing and not seeing them before they go out, since the written word carries a great degree of permanence. We seem to fear that an error may be perpetrated from which we will never recover if we do not review and sign everything that leaves our office. But, remember our basic assumptions and considering that we do not monitor our employees' telephone conversations, we are left with a rather weak argument for continuing our present policies with regard to correspondence. There will be errors, but hopefully they will not cause us to abandon the program once it is implemented, but if we feel it necessary to have a backup, a reading file of all correspondence can be maintained and reviewed as often as we feel necessary.

There are fringe benefits in that now we should be free to spend more time on our bigger problems as we are no longer spending time reviewing and rewriting the more routine correspondence that originates in our office. Productivity should improve, since the worker will be responsible for his work and his name will be on what leaves the office. He will pay more attention to details and not rely on higher levels of management to catch errors. The employee will also be motivated by the recognition he has received.

Conferences and meetings are other areas in which we can give the employee more responsibility. We, as supervisors, might attend as observers and let the project officer for the particular area make inputs for our organization instead of being the principle ourselves. If our organization has set up a meeting, let the supervisor make the opening remarks and then let the employee chair the meeting. All the motivators that make up job enrichment are present in this type of action. Putting together all the backup data and then having someone else follow through with the action can be a rather boring task if it happens over and over again, but carrying the job through to completion is interesting and satisfying.

We might also consider letting reports that come in go directly to the employee for analysis instead of through the supervisor to the employee. Let him make his analysis and present it to management, rather than management reviewing

the report, making comments on the problem areas, and having the employee parrot what he has already been told. Let the employee send out recurring reports directly to other agencies without two or three levels of review. If the report is accurate, and our basic assumptions about our people would lead us to believe it will be, then review by higher levels of management should not change what is in the report.

Advancement. Probably one of the best ways to motivate an employee is to assist him in advancing in his profession, and it is one of the hardest things to do in our environment. Both the military and civil service have removed advancement in rank or grade from the direct control of the supervisor, so we must look for ways to assure that our workers receive deserved advancement.

Military promotions and some civil service actions are now completed through board action and those considering the applicant have only his records with which to evaluate his past performance, making it doubly important for the supervisor to document the employee's file with meaningful examples of exceptional performance. It is at times possible for the supervisor to go to the members of the board and determine what during the employee's interview that particularly impressed or alienated the board. The supervisor can then assist the employee in strengthening his weak areas and emphasizing the strong points in preparation for the employee's

next interview. In our environment, the manager cannot promise his employees a promotion as there are too many variables; but he can work for the promotion of his people and until they are promoted, they will be motivated by the recognition they receive from his interest.

Possibility of Growth. Growth includes actual learning of new skills, with greater possibility of advancement within the current specialty or in others, as well as possible growth.[18] Dr. Herzberg identifies training as one of the strongest motivators available to the manager. In addition to the growth of the individual, this is another of the motivators that pays dividends in other areas as well. In being selected for training, the employee should become more secure in his job and, more important, feel that his efforts have been recognized by management. He can look forward to job growth which leads to increased responsibility and advancement. Those who subscribe to this theory are careful to point out that on-the-job training does not mean haphazard job rotation. Having an individual spend two to six months on a different job does little for him or for the organization, since he may not really have time to learn the job and make a meaningful contribution. What might be done is to begin by training an individual as backup for a senior specialist in his own or in a related field. He can then fill in for the person whenever he is absent

and he can also branch out and have a means for entry into another field.

Position descriptions may tend to limit the scope of a job; however, every effort should be made to leave it "open ended" so that the potential growth is evident. We must not allow the seeming restraints of a job description to keep us from expanding an individual job.

IV

I have attempted to show that the managers in the Army project management office need to evaluate their management philosophy and give serious consideration to utilizing the available management tools. I feel that these tools have been largely ignored by managers in the military because they seem to only apply to private industry. In this study I discussed two theories, Dr. Argyris' theory of integrating individual and organizational objectives and Dr. Herzberg's motivation-hygiene theory, that postulate a different basic cause of the management problems which we face. This approach was used to illustrate that there is not a clearly defined solution to management problems and also to show that theories that approach the problem in different manners may have practical application within an organization. Hopefully, I showed how Dr. Argyris' theory relates to the organization of the project office and cited enough examples of how Dr. Herzberg's theory can be applied to convince the reader that behavioral management is applicable in the project management environment. If the reader does not subscribe to the theories presented in this study, I hope that he will at least be stimulated to look into other possibilities available to him. In closing, I strongly feel that the application of behavioral management is practical and is

becoming more and more necessary in order for managers to keep pace with our changing times.

Footnotes

[1] Introduction to Military Program Management; Logistics Management Institute Task 69-28, 1971, p.2.

[2] Behavioral Science, Concepts and Management Application; Harold M. F. Rush, National Industrial Conference Board, Inc., 1969, p. 17.

[3] Ibid., p. 19.

[4] Ibid., p. 27.

[5] Ibid., p. 27.

[6] People and Productivity; Robert A. Sutermeister, McGraw-Hill. 1963. p. 177.

[7] Behavioral Science, Concepts and Management Application; op. cit., p. 28.

[8] Ibid., p. 29.

[9] Ibid., p. 29.

[10] "One More Time: How Do You Motivate Employees?"; Dr. Frederick Herzberg; Human Relations Series. Part II, Harvard Business Review, January-February 1968, p. 118.

[11] Work and the Nature of Man; Dr. Frederick Herzberg, The World Publishing Company, 1963, p. 169.

[12] "One More Time: How Do You Motivate Employees?"; op. cit., p. 124.

[13] The Program Manager Authority and Responsibilities; Logistics Management Institute Task 72-6, 1972, p. 23.

[14] "One More Time: How Do You Motivate Employees?"; op. cit., p. 121.

[15] Behavioral Science, Concepts and Management Application; op. cit., p. 21.

[16] Ibid., p. 21.

[17] Ibid., p. 21.

[18] Ibid., p. 21.

Selected Bibliography

Gellerman, Saul W. Motivation and Productivity. American Management Association, Inc., 1963.

Herzberg, Frederick. "One More Time: How Do You Motivate Employees?" Human Relations Series, Part II. Reprints from Harvard Business Review, 1959.

Herzberg, Frederick. Work and the Nature of Man. New York: The World Publishing Company, 1966.

Introduction to Military Program Management. Logistics Management Institute, Task 69-28, 1971.

Rush, Harold M.F. Behavioral Science, Concepts and Management Application. National Conference Board, Inc., 1969.

Sutermeister, Robert A. People and Productivity. New York: McGraw-Hill, 1969.

The Program Manager Authority and Responsibilities. Logistics Management Institute, Task 72-6, 1972.

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